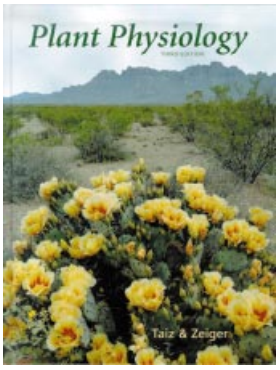
doi:10.1093/aob/mcg079



Plant physiology. 3rd edn.
L. Taiz and E. Zeiger.
Sunderland: Sinauer Associates. $104·95. 690 pp.

Plant physiology is part of the essential core curriculum every botanist has to master. As usually non-motile organisms that are, in most cases, fixed to a single locality for their entire lifetime, plants have special needs to cope with widely disparate, and often highly changeable environmental conditions. Physiological adaptations play as great a role in the evolutionary struggle for life of a plant as morphological ones.

Plant physiology by Taiz and Zeiger (and a plethora of contributing expert authors) is a well-received, established textbook aimed at students taking introductory courses in the field. One's first impression of the book is one of

excellent craftsmanship: from the eye-catching cover, to the quality of the paper and print, this third edition of *Plant physiology* is not only comprehensive, it is attractive. A single encounter will turn the first-time user into a potential buyer. The book is subdivided into 25 chapters, grouped into three larger sections (water, metabolism and development) that cover the major topics of modern plant physiology. All topics are treated in a very balanced way, with approximately equal weight being lent to each. Starting with the basics of each subject, the reader is taken to the very forefront of current knowledge. The writing style is succinct and lucid throughout, and the text is arranged in a two-column format that is very reader-friendly. Specific topics are easy to find using the detailed table of contents or index.

In the light of the explosive growth of our understanding of physiological processes in plants resulting from technological advances in the field of molecular biology, it is an amazing achievement to find that the authors have managed to keep the book's length to a 'mere' 690 pages. That this has not been achieved at the expense of including recent literature is borne out throughout the book: figures 19–41, for example, have been adopted from a 2001 publication. The extensive reference lists that conclude each chapter also demonstrate how up-to-date this third edition is, with a large proportion of the references dating from the last 5 years. The transfer of the apprentice from the textbook to the forefront research literature is greatly facilitated in this way. A glossary giving a brief explanation of many technical terms reinforces this impression.

An outstanding feature of this textbook is the large number of crisp figures, most of them in full colour. Although also rendering the figures aesthetically pleasing, the use of colour usually serves a didactic purpose (which may well be its primary cause). I found none of the figures to be overladen with detail nor of inappropriate (microscopically small or inflated) size. Full marks for this!

Plant Physiology is a modern textbook with a refreshing style and layout. The overall impression is one of a well-thought-out teaching aid. The authors/editors have achieved a remarkable feat in bringing it up-to-date without allowing any dead wood to accumulate (a symptom of ageing that unfortunately befalls the majority of textbooks as they advance through numerous editions). Let's hope they will be able to retain this phoenix-like rejuvenating potential in future editions. In its third edition, *Plant physiology* successfully defends its position in the top league of botanical textbooks. It is excellently produced, attractive and fun to use. It can even make an aged botanist wish he were an undergraduate student again!

Thomas Lazar

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